

Unit/Department	Process Area	MAR Veneze est me est	Site		Rep	ort Numbe		
North Operations-Elyria	1		ELYRIA	•	008	4-NOPS-1	3-0166	
Report Date	Incident Date		Incident Time		Сор	ied From	· ·	
10/22/2013	10/22/2013		07:00 AM	- -				
Incident Location			Team Leader / Sur	pervisor	Rep	orted By		menora de ser antes art
PR2 Mezzanine Above Table	etting Machines		Thomas Copa		Jacl	k Pettry		
Title of Event (Limit to 90 cha			Category	V		sion / Bus group Cod		
Dust Cloud While Filling Ho	ppers	and the second s	☐ Safety & Health ☐ Environmental	1	cc i	G-CCP	St. Last. 1977 Servey	e ar akminger i
Incident Classification			· · · · · · · · · · · · · · · · · · ·			,		
Near Miss	Proper	rty Loss	Cor	ntractor				
Process Safety		n / NOV	☐ Cor	ntractor Ir	njury / lilne	ess		
Injury / Illness	☐ Health	Exposure	☐ Cor	ntract Inju	ıry / Illnes	s		
Spill / Release	☐ Inspec	ction	☐ PSN	VI				
Permit / Regulatory Deviat	ion 🗌 Major	Incident	🖂 Plat	nt Upset				
Fire	☐ Non-O	ccupational		S Manage	ement Sys	stem Failu	ıre	
Odor Complaint	RMP		Oth	er				
Describe Event / What Happe	ned							
While operator was filling he releasing from tote to hoppe	oppers with the C er.	U-0860 Material	from a tote. A clou	ud of dus	st was fo	rmed fror	n the mat	erial
Immediate Corrective Action of	r Response	 		: .				
Had all people in area leave		clear		 -				
Immediate Cause	department ditti				1 2			
Under investigation						·- ·-		× ×
Spill Release Type(s)	Non RQ Spill / R	telease	 					
Chemical(s) Involved	· ·	CAS#	Phy. State	Air	Land	Water	Contmt	Units
CU 0860		N/A	Solid	0	0	0	5	ļ
	Cu0860 powder r							lbs
Weather Conditions	Skies:	Temper		Win	d Directio	n:	Wind Sp	eed:
		10				 -		J
Cause Narrative Material released too quickly	into hopper.							
Contributing Causes		Root/Primary C	auses					
Design is not robust enough		15 - Design Input/Output	17 - Design (LTA	Output	17 - Desi	gn Output	LTA	
Difficult to control flow to hopp	ers	138 - Human Factors Engine	160 - Intolera	ant	161 - Err	ors Not De	etectable	
Explanation of Root Causes				5.7			:	
17 - Design of system is not	robust enough to	prevent plugga	age of system or s	pillage o	f materia			
161 - It is difficult to control many means of loading the I	• •		-	t control	s in place	. Additio	nally, thei	re are
Any known or potential off-site	impacts? No	PSN	/I Incident? No		Estimate	d Cost:	500.00	

Inve	estigation Team Thomas Co	opa; Leon Zavodnik; Jack Pettry; N	lark Goodman	; Charles Ev	ans			
Ite m	Corrective Action(s) to prevent recurrence Responsible Person				Target Date	Final Closed Date	VC Re q	VE Re q
1	B: Determine a better temporary means of loading the tabletting hoppers	Charles Evans/BASF-CATALYSTS/BASF	02/14/2014	03/03/2014	N	N		
2	B: Scope out a project to better load the tabletting hoppers in working with process enginneering	Mark Goodman/NA/BASF	07/07/2014	05/14/2014	N	N		
3	B: Review process for inspection and cleaning of dust collection system in PR2 with PR2 group. AIM 0084-NOPS-13-0166 involved a plugged 3 inch flexable dust collector line which affected ventilation/dust collection.	Thomas Copa/NA/BASF	12/13/2013	01/30/2014	N	N		

Approved By:	enter the entertain and the same	
Manager / Dept. Head	Jason M Therrien	
EHS Unit Coordinator	Jason M Therrien	11/27/2013 08:11 AM
	Confidential	



Unit/Department	Process Area		Site	:	:	Rep	ort Numb	er	
North Operations-Elyria			ELYRIA		0084	-NOPS-1	14-0099		
Report Date	Incident Date		Incident Time			Copi	ed From		
08/07/2014	08/06/2014		06:00 PM				-/		
Incident Location	- /		Team Leader	/ Superv	risor	Rep	orted By		
PR2 Mezzanine			Charles Evan	s		Abd	allah Ahı	ned	
Title of Event (Limit to 90 char	acters)		Category				ion / Bus group Co	. Group / de	*** *** * ****************************
PR2 Tableting Hopper Filling	Material Spill		Safety & H			CC /	G-CCP		
Incident Classification				- modeus delahelike				_,	
☐ Near Miss	☐ Prope	rty Loss		Contrac	ctor			. g.,	
☐ Process Safety	☐ Citatio	n / NOV		Contrac	ctor Inj	ury / Iline	ess		
☐ Injury / Illness	Health	Exposure		Contrac	ct Injur	y / Illnes	3		
Spill / Release	☐ Inspec	tion		PSM					
Permit / Regulatory Deviation	on 🗌 Major	Incident		Plant U	pset				
☐ Fire	☐ Non-O	ccupational		EHS M	anage	ment Sys	tem Faile	TLE	
Odor Complaint	RMP			Other					
Describe Event / What Happen	ied		=						
While filling a PR2 tableting r	machine hopper	the Cu-1986 pil	l mix powder f	lowed in	n an u	ncontrol	led man	or and cre	ated a
Immediate Corrective Action or	Resnonse						30 X		
Stopped filling and vacuume	<u> </u>								
Immediate Cause	a ab abiii	er wysperie i growe with the	•						
To be determined. Will know	more after empl	loyee is intervie	wed.						
Spill Release Type(s)	Non RQ Spill / R	lelease		11.111111111111111111111111111111111111			,,		
Chemical(s) Involved		CAS#	Phy. Sta	te A	\ir	Land	Water	Control	Units
Cu 1986 Pill Mix		N/A	Solid		0	0	0	10	lbs
	Vacuumed up an				·. 1	same	<u> </u>		IDS
	Skies:	Tempe			Wind	Direction	n:	Wind Sp	peed:
				ALLENDA ALLE L. X	٠,,.			<u>. L </u>	
Cause Narrative								- · - · · - · · · · · · · · · · · · · ·	
While filling PR2 Hopper at st	tation #2 the mat	erial became a	erated and star	ted to f	low lik	e water.	The ma	terial fille	d the
hopper and squirted out of th	ie dust collection	i line that draw	s on the hoppe	r. The	full lig	ht did co	ome on b	ut after th	ne -
hopper was overfilled. Based	d on operator into	erview fill indic	ator worked as	design	ed bu	t respon	ded to s	lowly for t	the
operator to react.									
Contributing Causes		Root/Primary C	· · · · · · · · · · · · · · · · · · ·						:.
high level fill indicator came on operator to respond and shut o		15 - Design Input/Output	17 - Des LTA	sign Out _l	put '	17 - Desi	gn Outpu	t LTA	
Explanation of Root Causes		7 T.			.,,		-		
15-17-17 Tote filling hopper									full
Level indicator has historical requiring striking the tote to	lly malfunctioned	l and is old tecl	hnology. Mate						

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Inve	stigation Team Abdallah A	hmed; Mark Goodman; Ted Meek; M	ark Sova			
lte m	Corrective Action(s) to prevent recurrence	Responsible Person	Target Date	Final Closed Date	VC Re q	
1	check to see if a pm is in SAP maintenance and if not place one in system.	Mark Goodman/NA/BASF	08/29/2014	08/27/2014	N	N
2	investigate if better level control device is available and practicle for this application.	Kirk Sullenberger/BASF-CATALYSTS/BA SF	10/31/2014	08/21/2014	N	N

Approved By:	
Manager / Dept. Head	Abdallah Ahmed 09/08/2014 05;37 PM
EHS Unit Coordinator	Jason M Therrien 09/17/2014 01:17 PM
	Confidential



Unit/Department	Process Area		Site			Rep	ort Numbe	er .	
North Operations-Elyria	Copper - Build	ing 10	ELYRIA			0084	-NOPS-1	5-0008	
Report Date	Incident Date		Incident Ti	me		Copi	ed From		
01/21/2015	01/21/2015	-,	09:00 AM		<u> </u>	1	·	Na america video	
Incident Location			Team Lead	der / Su	pervisor	Repo	orted By		
APV Dryer Discharge Area			Thomas C	opa	a Minimistry .	Mich	nael Kanu	ıch	., ,
Title of Event (Limit to 90 cha	racters)		Category				ion / Bus. roup Cod		
Cooper- APV Matcon Tote P	roduct Release	WANTED TO THE TOTAL OF THE TOTA	☐ Safety ☐ Environ		h	CC /	G-CCP	··	
Incident Classification			J			<u>-</u>	· -		
☐ Near Miss	Proper	ty Loss		Со	ntractor				
Process Safety	☐ Citatio	π / NOV		☐ Co	ntractor l	njury / Iline	ss		
☐ Injury / Illness	☐ Health	Exposure		Co	ntract Inju	ury / Illness	3		
Spill / Release	☐ Inspec	tion		☐ PS	М				
Permit / Regulatory Deviat	ion 🗌 Major I	Incident		☐ Pla	nt Upset				
☐ Fire	☐ Non-O	ccupational		☐ EH	S Manag	ement Sys	tem Failu	re	
Odor Complaint	RMP			Oth	ner				
Describe Event / What Happe	ned	· · · · · · · · · · · · · · · · · · ·							
Immediate Corrective Action of Product released for only a not have as much pressure.	few seconds. Ope	rator then mad	le sure cap	was se	cure and	l adjust th	e air for t	he APV li	d to
Immediate Cause									
Investigating APV seal and I	butterfly valve.								
Spill Release Type(s)	Non RQ Spill / R	Palazea							
Chemical(s) Involved	Non Ku Spin / K	CAS#	Phy	State	Аiг	Land	Water	Contmt	Units
Cu-1879		N/A	Solid		0	3	0	0	lbs
	Solid material rel					J <u>~</u>			105
Disposition of Material Weather Conditions	Skies:	ika ilininga manatananan	rature:		Wir	nd Directio	n:	Wind Sp	eed:
								<u> </u>	
Cause Narrative		**************************************			o arramental i a Marinda a 1990 - h el la				
Changing out full tote with e	mpty tote on the	APV scale. Wh	en lowering	lid to	connect	to tote. Pr	essure b	uilt up in t	tote
and material that was filling due to the pressure, causing	in tote escaped th	rough the bot	tom of the t	ote. The	ere is a c	one in thi	s location	n that gap	ped
Contributing Causes		Root/Primary (Causes						
The dust collection that was a was removed, which put the c system at the butterfly valve. not open enough to allow for p displaced air.	ontrol of the That valve was	192 - Communicatio	ns Com	- No munica Timely	ition or			ion Between ment LTA	
Explanation of Root Causes		·							
192-194-196: Operator was o						alve.			

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	known or potential off-site impacts? estigation Team	PSM Incident? No opa; David D Hritsko; Abdallah Ahn	!	ost:			
lte m	Corrective Action(s) to prevent recur	rence	Responsible Person	Target Date	Final Closed Date	VC Re q	}
1	Operator cleaned area adjusted butte suction of pressure.	rfly valve for	Michael Kanuch/BASF-CATALYSTS/BASF	01/21/2015	02/02/2015	N	N
2	Adjust the butterfly valve open more to the displaced air in the tote from produced be removed adequately, and ultimate the system from being pressurized.	luct flow to	David D Hritsko/NA/BASF	02/06/2015	01/29/2015	N	N

	Approved By:
ł	Manager / Dept. Head Abdallah Ahmed 02/02/2015 04:01 PM
- 1	EHS Unit Coordinator Tim Anglin 02/03/2015 08:24 AM
	Confidential
	AP-27-WINDOWS - 1997 -

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Unit/Department	Process Area		Site			Repo	rt Numbe	er	
North Operations-Elyria	Copper - Build	ing 10	ELYRIA	A .		0084	-NOPS-1	5-0017	
Report Date	Incident Date		Inciden	t Time		Copi	ed From		
02/13/2015	02/12/2015		09:30 A	\M					
Incident Location		DISTANCE OF STREET SEC. ST.	Team L	eader / Su	pervisor	Repo	rted By		
Copper Dept			Thoma	s Copa		Ted	Meek	,	
Title of Event (Limit to 90 cha	aracters)		Catego	ry			ion / Bus. roup Cod		
Dusting Around Belt / APV				ety & Healtl	1	CC /	G-CCP		
			Env	ironmental					
Incident Classification				<u> </u>					
Near Miss		ty Loss		Coi	ntractor				
Process Safety	_	n / NOV		-		jury / Illne			
Injury / Illness	-	Exposure				ry / Iliness	:		
Spill / Release	L Inspec			∐ PSI					
Permit / Regulatory Deviat		Incident			nt Upset				
Fire		ccupational				ement Sys	tem Failu	re	
Odor Complaint	L RMP	v=5=pate	A, LOUIS NEW THAT THE TRANS	U Oth	er		 		
Describe Event / What Happe	ened				_				en e
Production manager and Grand G	questioned about	the cause, o	perators w	ere not su	lay, 2/12 t re but inc	hat the co licated th	opper pro at they b	ocess was elieved th	s ne feed
Immediate Corrective Action	or Response								
									
Troubleshoot the issue, ide	ntify the cause, an	d shut down	to clean ti	he area.					
Troubleshoot the issue, ide Immediate Cause	ntify the cause, an	d shut down	to clean ti	he area.	MATERIAL TO STORY TO				
The state of the s		d shut down	to clean ti	ne area.	Monthshall of the Total				
Immediate Cause		magnitudes	to clean t	he area.	Milliand IV 1991 - 1991				
Immediate Cause Still unknown, under invest	igation.	magnitudes		he area.	Air	Land	Water	Controt	Units
Immediate Cause Still unknown, under invest Spill Release Type(s)	igation.	elease	P	1	Air 0	Land 0	Water 0	Contmt 30	Units lbs
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved	igation. Non RQ Spill / R Hosed down floo	CAS#	P S	hy. State	0	0	0	30	lbs
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949	igation. Non RQ Spill / R	CAS # N/A rs and equip	P S	hy. State	0 treated b	0	0 vacuum	30	lbs terial
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material	igation. Non RQ Spill / R Hosed down floo as well.	CAS # N/A rs and equip	P S ment to tre	hy. State	0 treated b	0 y WWTP,	0 vacuum	30 ed up ma	lbs terial
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material Weather Conditions	igation. Non RQ Spill / R Hosed down floo as well.	CAS # N/A rs and equip	P S ment to tre	hy. State	0 treated b	0 y WWTP,	0 vacuum	30 ed up ma	lbs terial
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material	igation. Non RQ Spill / R Hosed down floo as well. Skies:	celease CAS # N/A rs and equip	P S ment to tre perature:	hy. State olid ench to be	treated b	0 y WWTP, d Direction	0 vacuum	30 ed up ma Wind Sp	lbs terial
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material Weather Conditions Cause Narrative Upon investigating, it was form	igation. Non RQ Spill / R Hosed down floo as well. Skies: ound that the botte was ion on the tote was	CAS # N/A rs and equip Tem om port of the	P Soment to tree perature: ne APV was	hy. State olid ench to be unclampe	0 treated b Wind	0 y WWTP, d Direction ng powde	0 vacuum	30 ed up ma Wind Sp pe. at the out	lbs terial beed:
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material Weather Conditions Cause Narrative Upon investigating, it was for addition, the dust collection blower coupling had failed.	igation. Non RQ Spill / R Hosed down floo as well. Skies: ound that the botte was with this failure, to	CAS # N/A rs and equip Tem om port of the second working the system of	P Soment to tree perature: ne APV was g. Upon intonnected to	hy. State olid ench to be unclampe	0 treated b Wind	0 y WWTP, d Direction ng powde	0 vacuum	30 ed up ma Wind Sp pe. at the out	lbs terial beed:
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material Weather Conditions Cause Narrative Upon investigating, it was for in addition, the dust collection blower coupling had failed. blower allowing product to	igation. Non RQ Spill / R Hosed down floo as well. Skies: ound that the botte was with this failure, to	CAS # N/A rs and equip Tem com port of the s not working the system cutcon lid seal	P Sment to tree perature: ne APV was g. Upon intonnected to l.	hy. State olid ench to be unclampe	0 treated b Wind	0 y WWTP, d Direction ng powde	0 vacuum	30 ed up ma Wind Sp pe. at the out	lbs terial beed:
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material Weather Conditions Cause Narrative Upon investigating, it was for the dust collection of the collection of the dust collectio	Hosed down floo as well. Skies: Skies: Skies: Skies: Skies: Skies: Skies Skie	CAS # N/A rs and equip Tem om port of the second contices and	perature: ne APV was g. Upon imonnected to	hy. State olid ench to be sunclampe vestigating o the mato	0 treated b Wind	0 y WWTP, d Direction ng powde ue, it was vas press	0 vacuum r to esca found th	30 ed up ma Wind Sp pe. pe. pat the out	lbs terial beed:
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material Weather Conditions Cause Narrative Upon investigating, it was for in addition, the dust collection blower coupling had failed. blower allowing product to	Hosed down floo as well. Skies: Skies: Skies: Skies: Skies: Skies: Skies:	CAS # N/A rs and equip Tem com port of the s not working the system cutcon lid seal	perature: ne APV was g. Upon into onnected to l. y Causes ent 3 rogram h	hy. State olid ench to be unclampe	treated b Wind	0 y WWTP, d Direction ng powde	0 vacuum r to esca found th	30 ed up ma Wind Sp pe. pe. pat the out	lbs terial beed:
Immediate Cause Still unknown, under invest Spill Release Type(s) Chemical(s) Involved Cu 1949 Disposition of Material Weather Conditions Cause Narrative Upon investigating, it was for the coupling had failed blower allowing product to Contributing Causes The bollom port hole was not	Hosed down floo as well. Skies: Skie	CAS # N/A rs and equip om port of the seal conticon lid seal Root/Primar 28 - Equipm Reliability Primar conticon lides and reconticon	perature: ne APV was g. Upon imonnected to l. y Causes ent 3 rogram A tion LTA ent 3 rogram A	hy. State olid ench to be unclamped vestigating the mate 6 - Predicti	treated by Wind with the work on tote with the work on tote with the with t	0 y WWTP, d Direction ng powde ue, it was vas press	0 vacuum r to esca found th urized fro	30 ed up ma Wind Sp pe. pe. pat the out	lbs terial beed:

back in January but was not communicated to supervision. There was apparently an ongoing problem that was not made aware.	55 - Administrative/Mana gement Systems	78 - Problem Identification/Contro I	80 - Problem Reporting LTA
Outlet blower coupling failed just over a month after a new one was installed.	28 - Equipment Reliability Program Implementation LTA	29 - Corrective Maintenance LTA	31 - Repair Implemtation LTA
Outlet blower couping failed causing the system to go positive pressure. Operator was unable to correct this condition. There is no interlock that shuts off the process when it goes positive.	15 - Design Input/Output	16 - Design Input LTA	16 - Desigл Input LTA

Explanation of Root Causes

28/36/37 - no system in place to detect potential failure of seal/clamp system.

28/36/38 - need to consider checking on security of the clamp after startup.

55/78/80 - a deficiency was identified yet the equipment was started back up without communicating to the proper people 28/29/31 - based on the coupling failure, it appears as though the repair made was LTA. It is possible that the blower was misaligned.

15/16/16 - this condition should have shut the process down.

Any known or potential off-site impacts?	No	PSM Incident?	No	Estimated Cost:	2,000.00 USD		
Investigation Team	Abdallah Ahmed; Jack Pettry; Kirk Sullenberger; Thomas Copa; Robert						
	Woolbright; Ch	ris Currier; Mich	ael Kanuch				

Ite m	Corrective Action(s) to prevent recurrence	Responsible Person	Target Date	Final Closed Date	VC Re	VE Re q
1	Include the need to inspect the effectiveness of the clamp after startup to ensure that it has not come lose in the appropriate document.	Jack Pettry/BASF-CATALYSTS/BASF	04/30/2015	02/17/2015	N	N
2	Add an operator PM to inspect the effectiveness of the port clamps on the APV.	Lee McClish/NA/BASF	03/31/2015	03/23/2015	N	N
3	Need to interlock the APV chamber pressure with the system that will shut down the feed screw and the APV product collector rotary valve (may be others).	Kirk Sullenberger/BASF-CATALYSTS/BA SF	06/30/2015	07/10/2015	N	N
4	Report this issue to the reliability engineer to determine why the blower had a premature failure. Evaluate root cause of failure.	Lee McClish/NA/BASF	04/30/2015	04/27/2015	N	N

Approved By:	
Manager / Dept. Head Abdallah Ahmed 03/01/2015 12:24 PM	
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Unit/Department	Process Are	a	s	ite		Report Number				
North Operations-Elyria			E	LYRIA	3.00	0084-NOPS-15-0094				
Report Date	Incident Date	e	li I	Incident Time		Copied I	rom	74.5		
07/15/2015	07/15/2015		1	1:30 AM						
Incident Location	e e		т	Team Leader / Supervisor			Reported By			
Building 10-#2 micro mill				avid D Hı	ritsko	David D	Hritsko			
Title of Event (Limit to 90 characters)			C	ategory		Division Subgrou	/ Bus. Group p Code	1		
Micro #2 mill dusting				Safety &		CC / G-0	CCP			
Incident Classification										
Near Miss Process Safety Injury / Illness Spill / Release Permit / Regulatory Dev Fire Odor Complaint	☐ Citi ☐ He: ☐ Ins riation ☐ Ma ☐ Noi ☐ RM	operty Los ation / NO alth Expos pection jor Incider n-Occupat	V sure nt		☐ Contract Inju ☐ PSM ☑ Plant Upset	njury / Illness ury / Illness ement System	n Failure			
Describe Event / What Hap	pened					The second secon				
CU 1201 material was blo	wing by dust coll	ector filte	ers and leak	ing at sta	ırt up of equipm	nent				
Immediate Corrective Action	n or Response		·							
Shut off equipment										
Immediate Cause										
filters not seated properly	7									
Cause Narrative			***************************************							
On 7-15-15. The operator Dust was escaping from t								to mi	iII. ——	
Contributing Causes			Primary Cau	ses						
Operator needs more traing the filters in dust collector.	on the seating of	163 -	Training	170 -	Training LTA	175 - On-the-	Job Training	LTA		
Procedure doesn't properly installation of filters.	cover the	111 -	Procedures	117 - Misle g	ading/Confusin	128 - Level o	f Detail LTA			
Explanation of Root Cause	S	:: :		===================================						
163-170-175 Operator was was discovered when he 111-117-128 There's a p	was changing to rocedure in place	the new t	filters after (EOP020). I	incident. But it has	no detail for fil	ters being in	stalled or rer	nove	d.	
Any known or potential off-				ncident?	No	Estimated C		USD		
Investigation Team	D	avid D Hr	itsko; Thon	nas Copa;	; Jack Pettry; M	ark Goodmai	1		, 'y ***	
Ite Corrective Action(s) to	prevent recurrent	ce	Responsib	le Person		Target Date	Final Closed Date	VC Re q	VE Re q	
Operater was trained. operators in safety me		her	Thomas Co	pa/NA/BA	NSF	09/30/2015	08/26/2015	N	N	
2 Update present proced	ture for the installa	ition and	David D Hritsko/NA/BASF			09/18/2015	09/14/2015	N	N	

rem	oval of filter for mill o	lust collectors.					l
Approve	d By:				*** manual of the 411444 to an brothly man on conference on one or	 	
Ma	nager / Dept. Head	Abdallah Ahmed	d 07/29/2015	03:00 PM			
EH	IS Unit Coordinator	Valerie Topete	07/30/2015 0	5:01 PM			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
,		Confidential		on a children to the Matthe announcement of the confidence of the		 	

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	Process Area		Site		Repo	ort Numbe	r	
North Operations-Elyria	Tableting – Bui	ilding 10	ELYRIA		0084	0084-NOPS-15-0104		
Report Date	Incident Date		Incident Time		Copi	Copied From		
07/25/2015	07/25/2015		02:15 PM					
Incident Location	4		Team Leader / St	pervisor	Repo	rted By		
Kneader Bldg 10	manuscript and enterprise and the second and the se		Abe Ahmed	set a	Abe	Ahmed	darate La Carlo	
Title of Event (Limit to 90 ch	aracters)		Category			ion / Bus. roup Cod		
Kneader Cu-1986 Powder R	Released		Safety & Heal Environmenta		CC/	G-CCP		
Incident Classification								
Near Miss	Proper	ty Loss	☐ Co	ntractor				
☐ Process Safety	Citation	n / NOV	Co	ntractor Ir	ijury / Iline	SS		
Injury / Illness	Health	Ехроѕите		ntract Inju	ry / Iliness	;		
Spill / Release	☐ Inspec		∐ P\$					
Permit / Regulatory Devia		ncident		ant Upset				
∐ Fire	_	ccupational		IS Manage	ement Sys	tem Failu	re	
☐ Odor Complaint	L RMP		Ot	her ————				
Describe Event / What Happe	ened				-			
Kneader powder release se	en by Production I	Manager while w	alking through t	he plant.		.		
the second state of the second state of the second	or Response							
Immediate Corrective Action	or recoporate			· · · · · · · · · · · · · · · · · · ·	encontractor of the first	<u> </u>		
Operator immediately shut		gan to clean the	e area.		economic de la companya de la compan			marada a r
		gan to clean the	e area.					
Operator immediately shut	off the feed and be ppears as though to thave shut off the	this was an equi	ipment malfunct ned) when it get	s full. Pro	duct may	have brid	kneader iged over	
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running	off the feed and be ppears as though to thave shut off the	this was an equi e feed (as desig product to build	ipment malfunct ned) when it get	s full. Pro	duct may	have brid	kneader iged over	
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s)	off the feed and be ppears as though t ot have shut off th g dry and allowing	this was an equi e feed (as desig product to build	ipment malfunct ned) when it get	s full. Pro	duct may	have brid	kneader dged over	
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n	off the feed and be ppears as though t ot have shut off th g dry and allowing	this was an equi e feed (as desig product to build elease	ipment malfunct ned) when it get I up until it found	full. Pro d a place t	duct may to escape	have brid	dged over	
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved	off the feed and be ppears as though t ot have shut off th g dry and allowing	this was an equi e feed (as desig product to build elease CAS # N/A	ipment malfunctined) when it get if up until it found Phy. State Dust Dust Dist didn't	Air 5 reach out	Land 0 side of bu	have brid Water 0 illding 10	Contmt	Units lbs the
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved Cu 1986 Pill Mix	off the feed and be ppears as though to thave shut off the g dry and allowing Non RQ Spill / R	this was an equi e feed (as desig product to build elease CAS # N/A	ipment malfunctined) when it get d up until it found Phy. State Dust e fitz mill didn't accuumed up inte	Air 5 reach out	Land 0 side of bu	Water 0 iilding 10 ind sent 1	Contmt	Units lbs the aste.
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved Cu 1986 Pill Mix Disposition of Material	off the feed and be ppears as though to ot have shut off the g dry and allowing Non RQ Spill / R The dusting that of equipment is loca	this was an equi e feed (as desig product to build elease CAS# N/A escaped from the	ipment malfunctined) when it get d up until it found Phy. State Dust e fitz mill didn't accuumed up inte	Air 5 reach out	Land O side of bullabeled a	Water 0 iilding 10 ind sent 1	Content 0 in which so solid w	Units lbs the aste.
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved Cu 1986 Pill Mix Disposition of Material Weather Conditions	off the feed and be ppears as though to ot have shut off the g dry and allowing Non RQ Spill / R The dusting that of equipment is loca	this was an equi e feed (as desig product to build elease CAS# N/A escaped from the	ipment malfunctined) when it get d up until it found Phy. State Dust e fitz mill didn't accuumed up inte	Air 5 reach out	Land O side of bullabeled a	Water 0 iilding 10 ind sent 1	Content 0 in which so solid w	Units lbs the aste.
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved Cu 1986 Pill Mix Disposition of Material Weather Conditions Cause Narrative While material was feeding escaped out of the shafts in	ppears as though to thave shut off the dry and allowing Non RQ Spill / R The dusting that equipment is local Skies:	this was an equie feed (as design product to build elease CAS#N/A escaped from thated. Area was various ran in manuwas ran in manu	ipment malfunctined) when it get if up until it found if the pust in the pust	Air 5 reach out of a drum, Win	Land O side of bu labeled a d Direction material	Water 0 iilding 10 ind sent 1	Contmt 0 in which o solid w Wind Sp	Units lbs the aste. need:
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved Cu 1986 Pill Mix Disposition of Material Weather Conditions Cause Narrative While material was feeding escaped out of the shafts ir feeding as much as it did. 1	ppears as though to thave shut off the dry and allowing Non RQ Spill / R The dusting that equipment is local Skies:	this was an equie feed (as design product to build elease CAS#N/A escaped from thated. Area was various ran in manuwas ran in manu	ipment malfunctined) when it get if up until it found if the pust he fitz mill didn't accumed up into ature:	Air 5 reach out of a drum, Win	Land O side of bu labeled a d Direction material	Water 0 iilding 10 ind sent 1	Contmt 0 in which o solid w Wind Sp	Units lbs the aste.
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved Cu 1986 Pill Mix Disposition of Material Weather Conditions Cause Narrative While material was feeding escaped out of the shafts in feeding as much as it did. T Contributing Causes Equipment able to run in mar faulty probe.	ppears as though to thave shut off the dry and allowing Non RQ Spill / R The dusting that equipment is local Skies: up into the fitz mill. This the high level probuul, bypassing the	this was an equie feed (as desig product to build elease CAS # N/A escaped from thated. Area was varied. Temperation of the control of the co	ipment malfunctined) when it get if up until it found if the pust he fitz mill didn't accumed up into ature:	Air 5 reach out of a drum, Win	Land O side of bu labeled a d Direction material	Water 0 silding 10 and sent to	Content 0 in which to solid w Wind Sp unning unaterial w	Unitiliti
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved Cu 1986 Pill Mix Disposition of Material Weather Conditions Cause Narrative While material was feeding escaped out of the shafts in feeding as much as it did. 1 Contributing Causes Equipment able to run in mar	ppears as though to thave shut off the dry and allowing Non RQ Spill / R The dusting that equipment is local Skies: up into the fitz mill. This the high level probuul, bypassing the	this was an equie feed (as desig product to build elease CAS # N/A escaped from thated. Area was varied area in manue fault shouldn'i Root/Primary Ca	Phy. State Dust Dust Dust Dust Dust Dust Dust Dust	Air 5 reach out of a drum, Win	Land O side of bu labeled a d Direction material aldn't tell anual.	Water 0 siliding 10 and sent 1 n: to keep r that the n gn Input L ining Req	Content 0 in which to solid w Wind Sp unning unaterial w	Units bs the aste. beed:
Operator immediately shut Immediate Cause Still under investigation. A flexicon feed hopper may n leaving the flexicon running Spill Release Type(s) Chemical(s) Involved Cu 1986 Pill Mix Disposition of Material Weather Conditions Cause Narrative While material was feeding escaped out of the shafts in feeding as much as it did. T Contributing Causes Equipment able to run in mar faulty probe.	ppears as though to thave shut off the dry and allowing Non RQ Spill / R The dusting that equipment is local Skies: up into the fitz mill. This the high level probuul, bypassing the	this was an equie feed (as desig product to build elease CAS#N/A escaped from thated. Area was van in manue fault shouldn't Root/Primary Ca 15 - Design Input/Output	Phy. State Dust Dust Dust Dust Dust Dust Dust Dust	Air 5 reach out of a drum, Win	Land O side of bu labeled a d Direction material aldn't tell anual. 16 - Desi	Water 0 siliding 10 and sent 1 n: to keep r that the n gn Input L ining Req	Content Content Content Content Which Content Conte	Units lbs the aste.

163 - 164 - 166. Operator placed feed into manual when probe failed so that he could fill hopper instead of stopping and informing GL an/or maintenance.

Any known or potential off-site impacts?		No	PSM Incident?	No	Estimated C	USD)		
Inve	stigation Team	Thomas Co	s Copa; Jack Pettry; Mark Goodman; Abdallah Ahmed; Ted Meek						
Ite m	Corrective Action(s) to prevent recur	rence	Responsible Person	The second secon	Target Date	Final Closed Date	VC Re q		
1	Write work notification to investigate high level probe to PLC.	the wiring of	Kirk Sullenberger/BASF-C SF	ATALYSTS/BA	08/18/2015	08/14/2015	N	N	
2	Investigate the wiring of high level pro to determine that it's actually tied into connect to PLC so that equipment will manual if Probe faults.	it. If not, will	Kirk Sullenberger/BASF-C SF	ATALYSTS/BA	10/16/2015	10/23/2015	N	N	
3	Speak with operators in monthly safe that if Probe fails, do not run in manu contact GL an/or Maintenance persor immediately.	al and	Thomas Copa/NA/BA	SF	08/28/2015	08/26/2015	N	N	

Approved By:		
Manager / Dept. Head	Abdallah Ahmed 08/14/2015 12:10 PM	
EHS Unit Coordinator	Valerie Topete 08/14/2015 12:27 PM	
The state of the s	Confidential	



Chromic acid 11115-74-5	Department	rocess Area	· · · · · · · · · · · · · · · · · · ·	Site	5 ÷	Rep	ort Numb	er	
DB/IO6/2015 DB/IO6/2016 DI-122 PM Reported By	n Operations-Elyria	opper - Building	10	ELYRIA		008	4-NOPS-1	5-0111	
Building 10, Chrome Makeup Tank	rt Date	icident Date		Incident Time)	Сор	ied From	•.	
Building 10, Chrome Makeup Tank Title of Event (Limit to 90 characters) Category Division / Bus. Group / Subgroup Code Building 10, Chrome Pump Failure Safety & Health Environmental Incident Classification Near Miss	5/2015	8/06/2015	1	01:22 PM	CLES COLLEGE TO THE				**************************************
Title of Event (Limit to 90 characters) Category	ent Location	. かし	-	Team Leadei	/ Supervisor	Rep	orted By		
Building 10, Chrome Pump Failure Safety & Health CC / G-CCP	ling 10, Chrome Makeup	nk		Thomas Cop	a	Chr	istopher	B Currier	AMOUNT
Incident Classification Near Miss	of Event (Limit to 90 chara	:rs)		Category					
Near Miss	ling 10, Chrome Pump Fa	ILG	[cc.	/ G-CCP		
Process Safety	ent Classification								
Injury / Illness	ear Miss	Property I	Loss		Contractor				
Inspection	rocess Safety	☐ Citation /	NOV		Contractor I	injury / Illno	ess		
Permit / Regulatory Deviation Major Incident Plant Upset		Health Ex	posure		Contract Inj	ury / Illnes	s		
Fire Non-Occupational SHS Management System Failure Odor Complaint RMP Other Describe Event / What Happened Chrome pump in the copper department caught fire while pump was in the process of pumping chrome into chromakeup tank. Flames were forcing out of the side of pump the size of 6" or less. Immediate Corrective Action or Response Put out fire with extinguisher Immediate Cause Faulty Pump, under investigation Spill Release Type(s) Non RQ Spill / Release Chemical(s) Involved CAS # Phy. State Air Land Water Contmodured Chromic acid 11115-74-5 Liquid 2 0 0 0 Disposition of Material Put out fire with extinguisher. Hosed down residue around pump. Weather Conditions Skies: Temperature: Wind Direction: Wind Stiffs to perhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Operator noticed on prior shift pump was running erratically. Oil seperator may have allowed too much oil 15 - Design Input 16 - Design Input 17 - Design Input 18 - Design Input 17 - Design Input 18 - Design Input 17 - Design Input 18 - Design Input 18 - Design Input 17 - Design Input 18		Inspection	п		PSM				
Odor Complaint RMP Other Describe Event / What Happened Chrome pump in the copper department caught fire while pump was in the process of pumping chrome into chromakeup tank. Flames were forcing out of the side of pump the size of 6" or less. Immediate Corrective Action or Response Put out fire with extinguisher Immediate Cause Faulty Pump, under investigation Spill Release Type(s) Non RQ Spill / Release Chemical(s) Involved CAS # Phy. State Air Land Water Conting Chromic acid 11115-74-5 Liquid 2 0 0 0 0 Disposition of Material Put out fire with extinguisher. Hosed down residue around pump. Weather Conditions Skies: Temperature: Wind Direction: Wind String the fair pump was cycling chromic acid to the chrome makeup tank in the Copper department. The pump cate file at the top exhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Operator noticed on prior shift pump was running erratically. Rool/Primary Causes Operator may have allowed too much oil 15 - Design Input 16 - Design Input 17 - Design Input 18 - Design I		Major Inci	ident		_				
Chrome pump in the copper department caught fire while pump was in the process of pumping chrome into chromakeup tank. Flames were forcing out of the side of pump the size of 6" or less. Immediate Corrective Action or Response Put out fire with extinguisher Immediate Cause Faulty Pump, under investigation Spill Release Type(s) Non RQ Spill / Release Chemical(s) Involved CAS # Phy. State Air Land Water Continuation Chromic acid 11115-74-5 Liquid .2 0 0 0 0 Disposition of Material Put out fire with extinguisher. Hosed down residue around pump. Weather Conditions Skies: Temperature: Wind Direction: Wind State Wind Direction: Wind State Contributing Causes Root/Primary Causes Root/Pr	re	Non-Occu	upational	Ĺ	EHS Manag	ement Sy	stem Failı	иге	
Chrome pump in the copper department caught fire while pump was in the process of pumping chrome into chromakeup tank. Flames were forcing out of the side of pump the size of 6" or less. Immediate Corrective Action or Response Put out fire with extinguisher Immediate Cause Faulty Pump, under investigation Spill Release Type(s) Non RQ Spill / Release Chemical(s) Involved CAS # Phy. State Air Land Water Contmodiate Contmodiate	dor Complaint	☐ RMP		L	Other				
makeup tank. Flames were forcing out of the side of pump the size of 6" or less. Immediate Corrective Action or Response Put out fire with extinguisher Immediate Cause Faulty Pump, under investigation Spill Release Type(s) Non RQ Spill / Release Chemical(s) Involved CAS # Phy. State Air Land Water Contmoderate Contmoderate Canter Contmoderate Canter	ribe Event / What Happen								
Put out fire with extinguisher Immediate Cause Faulty Pump, under investigation Spill Release Type(s) Non RQ Spill / Release Chemical(s) Involved CAS # Phy. State Air Land Water Contmodiate Co						pumping	chrome i	nto chron	ne
Faulty Pump, under investigation	diate Corrective Action or	sponse				-,			
Spill Release Type(s) Non RQ Spill / Release Chemical(s) Involved CAS # Phy. State Air Land Water Conting Chromic acid 11115-74-5 Liquid .2 0 0 0 Disposition of Material Put out fire with extinguisher. Hosed down residue around pump. Weather Conditions Skies: Temperature: Wind Direction: Wind State the top exhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Operator noticed on prior shift pump was running erratically. Reliability Program Implementation LTA Oil seperator may have allowed too much oil Non RQ Spill / Release Phy. State Air Land Water Conting Temperature: Wind Direction: Wind State around pump. Water Conting Causes area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Operator noticed on prior shift pump was running erratically. In plementation LTA Oil seperator may have allowed too much oil 15 - Design Input 16 - Design Input LTA	ut fire with extinguisher	WELL SHARE STATE OF THE STATE O	The second second and the second second						
Spill Release Type(s) Non RQ Spill / Release Chemical(s) Involved Chromic acid Chr	diate Cause				7.72				
Chemical(s) Involved CAS # Phy. State Air Land Water Control Chromic acid 11115-74-5 Liquid .2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	y Pump, under investiga	n	** · · · · · · · · · · · · · · · · · ·						
Chromic acid 11115-74-5	Release Type(s)	n RQ Spill / Rele	ase	<u></u>					-
Disposition of Material Put out fire with extinguisher. Hosed down residue around pump. Weather Conditions Skies: Temperature: Wind Direction: Wind States Narrative While the air pump was cycling chromic acid to the chrome makeup tank in the Copper department. The pump cafire at the top exhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Operator noticed on prior shift pump was running erratically. Reliability Program Maintenance LTA Action LTA Oil seperator may have allowed too much oil 15 - Design 16 - Design Input 16 - Design Input LTA	nical(s) Involved	(CAS#	Phy. St	ate Air	Land	Water	Contmt	Unit
Cause Narrative Wind Direction: Wind S Cause Narrative While the air pump was cycling chromic acid to the chrome makeup tank in the Copper department. The pump ca fire at the top exhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Operator noticed on prior shift pump was running erratically. Reliability Program Maintenance LTA Action LTA Oil seperator may have allowed too much oil 15 - Design 16 - Design Input 16 - Design Input LTA	nic acid			Liquid	.2	0	0	0	lbs
Cause Narrative While the air pump was cycling chromic acid to the chrome makeup tank in the Copper department. The pump ca fire at the top exhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Operator noticed on prior shift pump was running erratically. Reliability Program Maintenance LTA Action LTA Oil seperator may have allowed too much oil 15 - Design 16 - Design Input 16 - Design Input LTA	stion of Material F	out fire with exti	inguisher. Ho	sed down re	esidue aroun	d pump.			
While the air pump was cycling chromic acid to the chrome makeup tank in the Copper department. The pump cate fire at the top exhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Coperator noticed on prior shift pump was running erratically. College and the Flames were put out by operator with a fire extinguisher. Rect/Primary Causes 28 - Equipment 29 - Corrective 30 - Troubleshooting/Corrective Reliability Program Implementation LTA Coll seperator may have allowed too much oil 15 - Design 16 - Design Input 16 - Design Input LTA	her Conditions	es:	Tempera	iture:	Wi	nd Directio	in:	Wind Sp	eed:
While the air pump was cycling chromic acid to the chrome makeup tank in the Copper department. The pump cate fire at the top exhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. Valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Coperator noticed on prior shift pump was running erratically. College and the Flames were put out by operator with a fire extinguisher. Rect/Primary Causes 28 - Equipment 29 - Corrective 30 - Troubleshooting/Corrective Reliability Program Implementation LTA Coll seperator may have allowed too much oil 15 - Design 16 - Design Input 16 - Design Input LTA									
fire at the top exhaust area, causing flames to shoot upward into the air reaching 6" high, according to operator. valve to pump was shut off and the Flames were put out by operator with a fire extinguisher. Contributing Causes Operator noticed on prior shift pump was running erratically. Oil seperator may have allowed too much oil		-						·	mr
Contributing Causes Root/Primary Causes Operator noticed on prior shift pump was running erratically. Reliability Program Maintenance LTA Action LTA Oil seperator may have allowed too much oil Root/Primary Causes 28 - Equipment 29 - Corrective 30 - Troubleshooting/Corrective Reliability Program Maintenance LTA Action LTA Implementation LTA 15 - Design 16 - Design Input 16 - Design Input LTA	t the top exhaust area, ca	ing flames to sh	noot upward i	nto the air re	aching 6" hi	gh, accord			
Operator noticed on prior shift pump was running erratically. 28 - Equipment 29 - Corrective 30 - Troubleshooting/Corrective Reliability Program Implementation LTA 29 - Corrective 30 - Troubleshooting/Corrective Action LTA Maintenance LTA Action LTA 15 - Design 16 - Design Input 16 - Design Input LTA			-		eder et et e T	· · · · · · · · · · · · · · · · · · ·			5 5 7
Oil seperator may have allowed too much oil 15 - Design 16 - Design Input 16 - Design Input 17 - Design Input 18 - Desig		np was 28	3 - Equipment eliability Progra	29 - Co am Mainte	nance LTA	Action L	TA	_	live
get through to pump. Input/Output LTA	eperator may have allowed prough to pump.	, ,		16 - De	sign Input	16 - Des	ign Input I		
Explanation of Root Causes	nation of Root Causes	23.500 12.500 12.500 12.500 14							
28 - 29 - 30. Pump should had been shutdown when pump was noticed not running correctly. Maintenance should	20 20 Dump should be-	son objet					aintanne	o should	had
been contacted at early point.		.C.1 SHALADWII WI	nen pamp wa	s monocu III	unining co	y. mi	antonan	Griouiu	

mo	st likely oil from the plant air system	1							
Any	known or potential off-site impacts?	No		PSM Incident?	No	Estimated C	ost: 500.00	USD))
Investigation Team Thomas		Thomas Co	Copa; Jack Pettry; Mark Goodman; Abdallah Ahmed						
Ite m	Corrective Action(s) to prevent recur	rence	Res	ponsible Person	n en angre enne der deutsche Steelen de	Target Date	Final Closed Date	VC Re q	VE Re
1	Speak with operator on the importance of reporting equipment issues early when detacted instead of running as is, in safety meeting.		ssues early when detacted			09/30/201	08/26/2015	N	N
2	Investigate oil seperators on main air compressor to see if working properly.		Lee	VIcClish/NA/BAS	F	09/30/2015	09/01/2015	N	N
3	Replace air pump.		Thon	nas Copa/NA/B/	ASF	08/31/2015	08/14/2015	N	N

Approved By:	(a) 2/ (b) 1 (b) 1 (b) 1 (c) 1
	Abdallah Ahmed 08/14/2015 07:53 AM
EHS Unit Coordinator	Valerie Topete 08/13/2015 02:57 PM
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Unit/Department	Process Area		Site		Repo	rt Numbe	er.	
North Operations-Elyria	Pill Room – Bu	ilding 13	ELYRIA		0084	-NOPS-1	5-0128	
Report Date	Incident Date		Incident Time		Copied			
09/08/2015	e e e e e e e e e e e e e e e e e e e	01:00 PM						
Incident Location		man	Team Leader / Sup	pervisor	Repo	rted By		
Tableting-building 13 dust of	collector		David D Hritsko		Kenr	eth S Do	ocs	
Title of Event (Limit to 90 cha	aracters)		Category			ion / Bus roup Cod		
Dust collector spill(Line 7-1	3) in tableting		☐ Safety & Healtr ☐ Environmental	1	GC /	G-CCP		
Incident Classification								
Near Miss Process Safety Injury / Illness Spill / Release Permit / Regulatory Deviat Fire Odor Complaint Describe Event / What Happe Operator removed full drumemptied out on the floor Immediate Corrective Action Cleaned up spill. Immediate Cause Dust collector slide gate was	Citatio Health Inspection Major I Non-O RMP Pened I from dust collect or Response	Incident ccupational or hopper with to removing d	☐ Cor ☐ Psi ☐ Plai ☐ EH3 ☐ Oth	ntract Inju M nt Upset S Manage er	jury / Illnessement Sys	tem Failu		
Spill Release Type(s)	Non RQ Spill / R	CAS#	Phy. State	Air	Land	Water	Control	Units
Chemical(s) Involved Cu 0538	·	N/A	Solid	0	0	ovale:	950	
Disposition of Material	Collected into dru		vels and appropria			يـــر نـــــيــا	300	lbs
Weather Conditions	Skies:		erature:		d Direction	 1: 	Wind Sp	peed:
Cause Narrative An operator was in the prochoppers, the 13-18 machine the drum was removed. The been that much product sittle being emptied. Estimate in Contributing Causes	s, the briquetter, a e dust collector wa ing in the dust col	and one of the s as turned off b llector hopper	screeners. Slide garefore starting this to indicating that this was lost to contain	ate was n ask. In ad dust coll	ot in the ddition, ti	closed p tere show	osition w uld have i	never
There was not a set procedur task.	e for this specific	111 - Procedu	res 112 - Not Us	ed	116 - N o	Procedur	e for Task	:
The positioning of the slide garden for the slide g		138 - Human Factors Engine			161 - Erro		v	
There is no level indication or when it is full.		138 - Human Factors Engine					plays LTA	
The dust collector was not be regular basis allowing drums up in the dust collector hoppe	of product to build	55 - Administrative, gement Syster	•	•	63 - Resp Not Adeq		for Item/A	Activity

Controls (SPACs) LTA

Explanation of Root Causes

111/112/116 - There is no procedure on how to do this task. Different operators were accomplishing this in different

138/160/161 - There is no position indicator and actual positioner is actually opposite of most equipment. 138/140141 - There is no visibility as to how full the drum is or an alarm indicating that the drum is full and needs replaced. Dependent on manual checks.

55/57/63 - The requirement has never really been defined and/or enforced to have dust collectors emptied every shift. Had this been done, this incident would have never happened.

		No	PSM Incident? No	Estimated C	ost: 2,500.0	00 US	SD	
		Mark Good	Mark Goodman; Abe Ahmed; David D Hritsko; Kenneth S Docs					
lte m	Corrective Action(s) to prevent recur	rence	Responsible Person	Target Date	Final Closed Date	VC Re q	VE Re q	
1	Need to develop a procedure for man tableting dust collector, which include full drums.		Mark Goodman/NA/BASF	10/30/2015	10/09/2015	N	N	
2	Label the manual slide gate on the tableting dust collectors to indicate valve positioning.		David D Hritsko/NA/BASF	10/16/2015	10/02/2015	N	N	
3	Investigate cost of installing scales with local readout for dust collector drums and get added to the capital list.		adout for dust collector drums and get added to		10/30/2015	10/23/2015	N	N
4	Work with Production manager and Engineer to come up with a system to ensure that dust collectors are being emptied every single shift (checklist).		Thomas Copa/NA/BASF	12/31/2015	12/14/2015	N	N	
5	The second secon		Mark Goodman/NA/BASF	10/30/2015	10/14/2015	N	N	

oved By:	The state of the s
Manager / Dept. Head	Abdallah Ahmed 09/17/2015 02:19 PM
EHS Unit Coordinator	Nancy Gallagher 10/01/2015 10:52 AM
Safety & I.H.	Valerie Douglas 10/01/2015 12:51 PM
	Confidential



Unit/Department	Process Area		Site			Rep	ort Numb	ėr	
North Operations-Elyria	Tableting – Bu	ıilding 26	ELYRIA	ELYRIA		0084-NOPS-15-018		5-0180	
Report Date	Incident Date		Incident Time			Сор	ied From		
11/17/2015	11/17/2015		08:00 AM						
Incident Location			Team Lead	ler / Su	pervisor	Rep	orted By		
South end of Building 26 After	er Filters	. =	Thomas C	ора	-	Ken	Pugh	Sec	
Title of Event (Limit to 90 char	acters)		Category				ion / Bus group Cod		
North Copper Calciner #1 HE	PA Stack Releas	se	☐ Safety & ☐ Environ		1	cc i	G-CCP		
Incident Classification									
☐ Near Miss	☐ Prope	rty Loss		Col	ntractor				
⊠ Process Safety	Citatio	on / NOV		Col	ntractor li	njury / lilne	ess		
Injury / Illness	Health	n Exposure				ury / Ilines	S		,
Spill / Release	∐ Insped			∐ PS					
Permit / Regulatory Deviation		Incident			nt Upset				
Fire	_	Occupational			_	ement Sys	stem Failu	ıre	
☐ Odor Complaint	□ RMP	···		∐ Oth	er			· · · · · · · · · · · · · · · · · · ·	
Describe Event / What Happen	ed		<u></u>				~ ~		V 175
While switching the main dra product released out of the b									
Immediate Corrective Action or	Response								
Shut off immediately. Clean of	outside area.	······································							
Immediate Cause		·							·
Under investigation						.,,			and a
Spill Release Type(s)	Non RQ Spill / F	Release							
Chemical(s) Involved		CAS#	Phy.	State	Аiг	Land	Water	Contmt	Units
Cu 0246 P		NA NA	Dust	·	25	0	0	0	lbs
Disposition of Material	Vacuum & Floor	Scrubber			W-1	di nome	L		Ermar Law :
Weather Conditions	Skies: Cloudy	Tempe	erature: 50 F		Win	nd Directio	n: W	Wind Sp	peed:
The state of the s	THE PARTY OF THE P					TANK OF THE STATE	avraurur ur		
Cause Narrative									
Primary filter was leaking and and material dropping out in		I the HEPA. Mo	ore than likely	y, this i	esulted	in reduce	d duct ve	elocity/air	flow
									_
When the bypass was opene sitting in the duct was re-ent				in the	duct was	s increase	ed and the	e material	l
Contributing Causes	200 200 200 200 200 200 200 200 200 200	Root/Primary				::-:::::	. 111 -		
No procedure detailing under w	hat conditions	111 - Procedu		-		136 - Inc	omplete/S	Situation N	ot
the bypass valve should/should				ng/Incor	nplete	Covered			·
Primary filters were leaking and	d should not be.	15 - Design		Design	Output	17 - Desi	gn Outpu	t LTA	
,		Input/Output	LTA						
Explanation of Root Causes	and the same of th	Input/Output	LIA	·		LEASE WITH LANCE TO THE TOTAL PROPERTY OF THE LANCE	COMMENS OF THE PARTY OF THE PAR		
Explanation of Root Causes		Input/Output					Executive in the second		

Any	known or potential off-site impacts?	No	PSM Incident? No	Estimated C	ost: 2,500.0	00 US	3D
Investigation Team Thomas		Thomas C	opa; Kenny Pugh; Abe Ahmed; M	ark Goodman			
lte m			Responsible Person	Target Date	Final Closed Date	VC Re q	VE Re
1	Develop/Revise a procedure on how to properly utilize the bypass when changing/looking at HEPA.		Jack Pettry/BASF-CATALYSTS/BASF	02/29/2016 12/09/201		N	N
2	Schedule for new high temp filters to be installed on N/End RC#1 Main Draft Dust Collector. If this is not successful, reinitiate a capital project to replace entire unit.		N/End RC#1 Main Draft Dust Collector. If this not successful, reinitiate a capital project to		02/02/2016	N	N
3	Consider adding HEPA dP reading to detailing appropriate operating ranges		Abdallah Ahmed/NA/BASF	02/29/2016	02/26/2016	N	N

Α	pproved By:	
	Manager / Dept. Head Abdallah Ahmed 12/02/2015 03:37 PM	ı
	EHS Unit Coordinator Valerie Douglas 12/02/2015 11:30 AM	
	Ecology Tim Anglin 12/02/2015 09:35 AM	
	Confidential	

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We ch	até al	iamistry

Unit/Department						
	Process	Area	Site	Report Numl	per	
North Operations-Elyria	Tabletin	g – Building 10	ELYRIA	0084-NOPS	16-0160	
Report Date	Incident	Date	Incident Time	Copied From	1	
08/11/2016	08/10/20	16	09:30 PM			
Incident Location			Team Leader / Supervisor	Reported By	Mar 1	
Kneader Bin Vent Dust Col	llector	to recognize the most of the second second	David D Hritsko	Ted Meek	·	
Title of Event (Limit to 90 ch	aracters)		Category	Division / Bu Subgroup Co		
Kneader Bin Vent Dust Col	llector	ann ann an Air an A	Safety & Health Environmental	CC / G-CCP		I segment
Incident Classification			· · · · · · · · · · · · · · · · · · ·			
Near Miss		Property Loss	☐ Contractor			
Process Safety		Citation / NOV	☐ Contractor In	ijury / Illness		
Injury / Illness		Health Exposure	Contract Inju			
Spill / Release		Inspection	☐ PSM	•		
Permit / Regulatory Devia	ation 🗌	Major Incident	Plant Upset			
Fire		Non-Occupational	EHS Manage	ement System Fai	lure	
Odor Complaint		RMP .	Other			
Describe Event / What Happ	ened		Linear Control of the			
	ne dust colle	ctor stack. Estimat	was restarted dust in the cle ed one small hand full was d		as mixed v	with
the filtered air and exited the filtered air and exited the Immediate Corrective Action Evaluated source of dust a limmediate Cause Air blowdown pipe came to actuate and the displaced I	ne dust colle or Response and ran the d pose from its blowdown pi	ust collector. Dust mounting. When be	ed one small hand full was d stopped flowing from clean a plowdown timer was repaired ow in the clean air space. Th	ischarged. air space within 3 all blowdown pi	0 seconds	ble to
the filtered air and exited the filtered air and exited the Immediate Corrective Action Evaluated source of dust a Immediate Cause Air blowdown pipe came to actuate and it but the clean air place are also and it but the clean air place and air place are also air place and air place are also air place are also air place and air place are also air pl	or Response and ran the d cose from its blowdown pi	ctor stack. Estimat ust collector. Dust mounting. When b pe allowed air to bl lowdown pipe tube	ed one small hand full was d stopped flowing from clean a plowdown timer was repaired ow in the clean air space. Th	ischarged. air space within 3 all blowdown pi	0 seconds	ble to
the filtered air and exited the filtered air and exited the Immediate Corrective Action Evaluated source of dust a Immediate Cause Air blowdown pipe came to actuate and the displaced I the clean air place and it blooming the Release Type(s)	or Response and ran the d cose from its blowdown pi	ust collector. Dust mounting. When be	ed one small hand full was d stopped flowing from clean a plowdown timer was repaired ow in the clean air space. Th	ischarged. air space within 3 all blowdown pi	0 seconds pes were a esidual dus	ble to
the filtered air and exited the filtered air and exited the Immediate Corrective Action Evaluated source of dust a Immediate Cause Air blowdown pipe came to actuate and the displaced if the clean air place and it blowling Release Type(s) Chemical(s) Involved	or Response and ran the d cose from its blowdown pi	ctor stack. Estimat ust collector. Dust mounting. When b pe allowed air to blowdown pipe tube	ed one small hand full was d stopped flowing from clean a plowdown timer was repaired ow in the clean air space. Th sheet.	ischarged. air space within 3 all blowdown pi ae air stirred up re	0 seconds pes were a esidual dus	ble to st in Units
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Immediate Corrective Action Evaluated source of dust a Immediate Cause Air blowdown pipe came to	or Response and ran the d cose from its blowdown pi	mounting. When be allowed air to be allowed with pilowed with the pill / Release CAS # N/A N/A Sposed of.	ed one small hand full was distopped flowing from clean a blowdown timer was repaired ow in the clean air space. The sheet. Phy. State Air Dust 0	ischarged. air space within 3 all blowdown pine air stirred up ro	0 seconds pes were a esidual dus	ble to st in Units
the filtered air and exited the Immediate Corrective Action Evaluated source of dust a Immediate Cause Air blowdown pipe came ic actuate and the displaced if the clean air place and it blowdown pipe came ic actuate and the displaced if the clean air place and it blowdown pipe came ic actuate and it blowdown pipe came ic actuate and the displaced in the clean air place and it blowdown pipe came ic actuate and it blowdown pipe came i	ne dust colle or Response nd ran the d cose from its blowdown pi lew out the b Non RQ S Material die Skies:	mounting. When be allowed air to blood when pipe tube CAS # N/A Temp	stopped flowing from clean a slowdown timer was repaired ow in the clean air space. The sheet. Phy. State Air Dust 0	ischarged. all blowdown pine air stirred up re Land Water 0 0 d Direction:	0 seconds pes were a esidual dus Contmt 1	ble to st in Units lbs
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the filtered air and exited the Immediate Corrective Action Evaluated source of dust a Immediate Cause Air blowdown pipe came to actuate and the displaced Inthe clean air place and it blowdown pipe came to the clean air place and it blowdown pipe came to the clean air place and it blowdown pipe came to the clean air place and it blowdown to the clean to	ne dust colle or Response nd ran the d cose from its blowdown pi lew out the b Non RQ S Material di Skies: was not clea der and it wa oes not exist residual dust.	mounting. When be allowed air to blowdown pipe tube CAS # N/A	stopped flowing from clean a stopped flowing from clean air space. Phy. State	ischarged. air space within 3 all blowdown pine air stirred up re Land Water 0 0 d Direction: nen blowdown pinen blowdow	O seconds pes were a esidual dus Contrat 1 Wind Sp pe came lo	ble to st in Units Ibs beed:
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EHS Unit Coordinator	Tim Anglin	08/26/2016 10:19 AM	
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Accident / Incident Report Final - Pending Items

	1	
We create chemist	ŀΫ	
		-

Unit/Department	Process Area		Site			Repo	ort Numbe	er :		
North Operations-Elyria	Iorth Operations-Elyria Tableting – Building 10				ELYRIA			0084-NOPS-16-0178		
Report Date	Incident Date		Incident Time			Copi	Copied From			
08/23/2016	10:00 AM		***************************************		.,					
Incident Location		Team Lead	ler / Sup	ervisor	Repo	orted By	· · · · · · · · · · · · · · · · · · ·			
Kneader Discharge Station	The second secon	ELECTRONIC STATE (1910)	Thomas C	ора		Abd	allah Ahn	ned	<u> </u>	
Title of Event (Limit to 90 cha	racters)		Category		100		ion / Bus. group Cod			
Kneader Discharge Overflow	V		Safety &	& Health mental	- P-D 4444	CC /	G-CCP			
Incident Classification										
Near Miss Process Safety Injury / Illness Spill / Release Permit / Regulatory Deviati Fire Odor Complaint Describe Event / What Happel While Production manager v discharge station, powder/p discharge lid. He reported to Immediate Corrective Action o Clean up product from spill Immediate Cause Under investigation	Inspection Inspection Major In Non-Oc RMP med Vas making a roun roduct was present Supervisor r Response	/ NOV Exposure ion acident ccupational	room departn also powder	Cor Cor PSI Plai EHS	nt Upset S Manage er er	ment Sys	stem Failu	the kneac	l er	
Spill Release Type(s)	Non RQ Spill / Re					organization				
Chemical(s) Involved		CAS#		State	Air	Land	Water	Contmt	Units	
CU 1152		N/A	Solid		0	0	0	10	lbs	
Disposition of Material Weather Conditions	Hose to trench, se Skies:	· · · · · · · · · · · · · · · · · · ·	erature:	*** **********************************	Wind	l Direction	n:	Wind Sp	eed:	
Cause Narrative When the discharge flexicon discharge lid(See attachmen Contributing Causes Boot wasn't connected to the f	it). ill station flange.	nowder is eso Root/Primary 28 - Equipme Reliability Pro Implementation	Causes nt 29 - gram Main	upper Correcti	ve			ing to the		
Explanation of Root Causes			Andrew Street,							
28 - 29 - 31 The clamp wasn' area.	t put back in place	after repair	to the fill stat	tion flar	ige. Mosi	likely at	the end	of repair t	o this	
Any known or potential off-site	impacts? No	P	SM Incident?	No		Estimate	d Cost:	500.00 U	SD	
Investigation Team	Thom	as Copa; Wil	liam O Tuttle	; Mark	Goodma	ı; Shawr	Justice		MATERIAL PROPERTY AND ADDRESS OF THE PARTY AND	

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Ite m	Corrective Action(s) to prevent recurrence	Responsible Person	Target Date	Final Closed Date	VC Re q	VE Re
1	Connect the hose to the fill station flange and secure clamp to it.	Thomas Copa/NA/BASF	10/31/2016	10/03/2016	N	N
2	Add stops to floor infront of scale to prevent tote/forklift from strlking scale, moving it.	Thomas Copa/NA/BASF	11/25/2016	-	N	N

Approved By:			
Manager / Dept. Head Abdallah Ahmed 09/15/2016 01:15 PM			
EHS Unit Coordinator Nancy Gallagher 09/16/2016 02:19 PM			
Confidential			